## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020340

Address: 333 Burma Road **Date Inspected:** 13-Dec-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. ZHU ZHONG HAI **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component: OBG Segment** 

## **Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed.

This QA inspector randomly observed the following work:

#### 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Fillet welds joining the Intermediate panel point L-angle stiffener to corner assembly weld joint located on 12AW at cross beam side, Panel Point (PP-110.5). The weld is designated as SEG3004N-002. The welder is identified as 045268. ZPMC QC Mr. ZHANG QIANG was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-B-P-2112, WPS-B-P-2113 & WPS-B-P-2114.

ZPMC welding personnel performing Air Carbon Arc Gouging of Repair weld for the U-Rib splice plate weld joint located on LIFT 12W. The weld is designated as USPL1-652-001 & 002 to USPL1-659-001 & 002. ZPMC QC Mr. SHI LIE was onsite monitoring the welding variables. The weld repair report number is named as WR-19038 to WR-19053.

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

ABF Quality Control (QC) personnel performing Magnetic particle Testing (MT) for the U-Rib splice plate weld joint after repair gouged area located on LIFT 12W. The weld is designated as USPLI-655-001 & 002.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the U-Rib splice plate weld joint located on LIFT 12W. The weld is designated as USPLI-655-001. The welder is identified as 046709. ZPMC QC Mr. SHI LIE was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-1G (1F)-FCM-Repair-1. The weld repair report number is named as B-WR-19044.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Fillet welds joining the Intermediate panel point L-angle stiffener to corner assembly weld joint located on 12AW at counter weight side, Panel Point (PP-109.5). The weld is designated as SEG3004K-001. The welder is identified as 045268. ZPMC QC Mr. ZHANG QIANG was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-B-P-2112, WPS-B-P-2113 & WPS-B-P-2114.

ABF Quality Control (QC) personnel performing Ultrasonic Testing (UT) for the bottom plate to side plate hold back weld joint located on west side of 12AE at cross beam side.

2. NDT:

Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 07753.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA inspector generated a (UT) (TL-6027) report for this date. The QA Inspector generated a TL-6027 UT report on this date. Weld identification numbers were OBE11D-078 & 081, OBE11D-086 & 087 & OBE11E-109 & 112.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations were reported on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

**Inspected By:** Pillai,Santosh Quality Assurance Inspector **Reviewed By:** Miller,Mark QA Reviewer